



Our Ref. No.: 42390P4214DC

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application for:

Chunlin Liang

Serial No.: 10/632,578

Filed: July 31, 2003

For: **A THERMAL CONDUCTING
TRENCH IN A SEMICONDUCTOR
STRUCTURE AND METHOD FOR
FORMING THE SAME**

Examiner: Thanh V. Pham

Art Group: 2823

RESPONSE TO OFFICE ACTION

Mail Stop Non-Fee Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

In response to the Office Action dated March 24, 2004, Applicants respectfully request entry of the election set forth below and consideration of the remarks that follow.

RESPONSE TO RESTRICTION REQUIREMENT

Applicants elect Group 1, Claims 1-21, drawn to methods, classified in class 438, subclass 700 without traverse.

In addition, the Patent Office requests that the Applicants identify between two species of Group 1, the first species related to method of forming trench contact and the second species related to forming a transistor structure. The Patent Office states that claim 1 is generic to claim 8 only (e.g., and thus not generic to claim 14). In response, Applicants select the method of forming trench contact. Specifically, Applicants select the first species related to method of forming trench contact includes claims 1-4, and 6-12.

However, Applicants also traverse the species restriction and assert that claims 1-4, 6-12, and 14-21 are generic. For example, each of claims 1-4, 6-12, and 14-21 is directed to filling a portion of a trench with a thermally conducting material, and patterning, depositing, or forming a contact or spacer portion over, to, or adjacent to a device structure, transistor structure, or feature thereof. Therefore, except for claims 5 and 13 which require forming a transistor structure, Applicants assert that claims 1-4, 6-12, and 14-21 are generic.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: April 22, 2004

Angelo J. Gaz, Reg. No. 45,907

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Seventh Floor
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CERTIFICATE OF MAILING
I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail with sufficient postage in an envelope addressed to: Mail Stop Non-Fee Amendments, Commissioner for Patents, P. O. Box 1450, Alexandria, Virginia 22313-1450 on April 22, 2004.
Jean Svoboda



TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application No.	10/632,578
Filing Date	July 31, 2003
First Named Inventor	Chunlin Liang
Art Unit	2823
Examiner Name	Thanh V. Pham
Total Number of Pages in This Submission	6
Attorney Docket Number	42P4214DC

ENCLOSURES (check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> PTO/SB/08 <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Basic Filing Fee <input type="checkbox"/> Declaration/POA <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <div>Return receipt postcard</div>
Remarks		
RESPONSE TO RESTRICTION REQUIREMENT		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Angelo J. Gaz, Reg. No. 45,907 BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Signature	
Date	April 22, 2004

CERTIFICATE OF MAILING/TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Typed or printed name	Jean Svoboda		
Signature		Date	April 22, 2004

FEE TRANSMITTAL for FY 2004

Effective 10/01/2004. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT (\$) 0.00

Complete if Known

Application Number 10/632,578
Filing Date July 31, 2003
First Named Inventor Chunlin Liang
Examiner Name Thanh V. Pham
Art Unit 2823
Attorney Docket No. 42P4214DC

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account

Deposit Account Number 02-2666

Deposit Account Name Blakely, Sokoloff, Taylor & Zafman LLP

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) or underpayment of fees as required under 37 CFR §§ 1.16, 1.17, 1.18 and 1.20.

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account

FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)					

2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
34	34	0	\$0.00
Independent Claims	5	0	\$0.00
Multiple Dependent			

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1202	18	2202	9	Claims in excess of 20	
1201	86	2201	43	Independent claims in excess of 3	
1203	290	2203	145	Multiple Dependent claim, if not paid	
1204	86	2204	43	**Reissue independent claims over original patent	
1205	18	2205	9	**Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)					0.00

*or number previously paid, if greater. For Reissues, see below

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
2053	130	2053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920 *	1804	920 *	Requesting publication of SIR prior to Examiner action	
1805	1,840 *	1805	1,840 *	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	960	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	1,210	2255	605	Extension for reply within fifth month	
1404	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	2451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	2460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1805	180	1805	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	1809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

* Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

SUBMITTED BY

Complete (if applicable)

Name (Print/Type) Angelo J. Gaz Registration No. (Attorney/Agent) 45,907 Telephone (310) 207-3800
Signature Date 04/22/04